

other Bodies as much rarer as he pleases, so that Light may find a ready passage through transparent substances.

## P R O P. IX.

*Bodies reflect and refract Light by one and the same power variously exercised in various circumstances.*

This appears by several Considerations. First, Because when Light goes out of Glass into Air, as obliquely as it can possibly do, if its incidence be made still more oblique, it becomes totally reflected. For the power of the Glass after it has refracted the Light as obliquely as is possible if the incidence be still made more oblique, becomes too strong to let any of its rays go through, and by consequence causes total reflexions. Secondly, Because Light is alternately reflected and transmitted by thin Plates of Glass for many successions accordingly, as the thickness of the Plate increases in an arithmetical Progression. For here the thickness of the Glass determines whether that power by which Glass acts upon Light shall cause it to be reflected, or suffer it to be transmitted. And, Thirdly, because those surfaces of transparent Bodies which have the greatest refracting power, reflect the greatest quantity of Light, as was shewed in the first Proposition.

## P R O P. X.

*If Light be swifter in Bodies than in Vacuo in the proportion of the Sines which measure the refraction of the Bodies, the forces of the Bodies to reflect and refract Light,*

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